Ass2

Testing the client

```
make build_client
cd client

# Try a command!
./WTF create test_project
```

Testing the server

```
make build_server
cd server

# Start the server
./WTFServer 8000
```

Or, use the shortcut.

```
# Start the server (port 8000 by default)
make run_server
```

Storing files in memory

The only files read for any project are those listed in it's manifest. To send files, read in the manifest, then read file data into every file listed in the manifest.

```
// Read in the manifest
Manifest* manifest = manifest_read("projects/test_project");

// Get files listed in the manifest
// Each file contains `file_name`, `file_version` and `file_hash`. See `filelist.h`
FileList* manifest_files = manifest->filelist;

// Read file data into every listed file
// Each file now now also contains `file_size` and `file_bytes`. See `filelist.h`
FileList* files_with_data = filelist_readbytes("projects/test_project", manifest_files);
```

Sending files

After successfuly storing files inside of a `FileList` linked list, add them to a request to send them. Open request.h to see what else that a request can contain.

```
// Read in manifest
Manifest* manifest = manifest_read("projects/test_project");

// Get files listed in the manifest
FileList* manifest_files = manifest->filelist;

// Read file data into every listed file
FileList* files_with_data = filelist_readbytes("projects/test_project", manifest_files);

// Create request
Request* request = request_new();

// Send files with request
request->filelist = files_with_data;

Response* response = client_send(request);
```

Installing OpenSSL

Taken from here.

```
brew update
brew install openssl
echo 'export PATH="/usr/local/opt/openssl/bin:$PATH"' >> ~/.bash_profile
source ~/.bash_profile
```

Protocol

Response Protocol

```
<message>:
<file_count>:
<file_path>:
<file_size>:
<file_bytes>
```

Request Protocol

```
<command_name>:
<project_name>:
<project_version>:
<file_count>:
<file_path>:
```

```
<file_size>:
<file_bytes>
```